illuminating a sample using an optical assembly comprising a movable mirror to focus electromagnetic radiation on sequential regions of said sample; wherein said optical assembly comprises a sheath for transmitting said electromagnetic radiation to said sample;

collecting with said optical assembly, electromagnetic radiation emanating from said sequential regions, thereby to associate said sequential regions with collected electromagnetic radiation emanating therefrom; and

analyzing said collected electromagnetic radiation in order to determine characteristics of said sequential region based upon features of said collected electromagnetic radiation.

106. (New) The method of claim 105, wherein said mirror is a beam splitter.

107. (New) The method of claim 105, wherein said collecting step comprises focusing said emanating radiation on a detector using a second movable mirror.

108. (New) The method of claim 105, wherein said analyzing step comprises detecting said emanating radiation and comparing emanating radiation obtained from a region of said sample to a standard.

109. (New) The method of claim 105, wherein said sample is biological tissue.

110. (New) The method of claim 109, wherein said biological tissue is cervical tissue.

111. (New) The method of claim 105 further comprising the step of diagnosing a disease state based upon a comparison of said emanated electromagnetic radiation to one or more standards indicative of various states of health.

112. (New) The method of claim 105, wherein said emanating electromagnetic radiation is substantially confocal with electromagnetic radiation provided in said illuminating step.

113. (New) The method of claim 105, wherein predetermined wavelengths of said emanating electromagnetic radiation are selected for analysis in said analyzing step.

114. (New) The method of claim 105, wherein said illuminating step comprises illuminating substantially all of said sample.

115. (New) The method of claim 105, wherein said sheath is a single-use disposable sheath.

116. (New) The method of claim 108, wherein said detecting step comprises an array of detectors.

117. (New) The method of claim 116, wherein said array of detectors comprises optical elements and processors.

118. (New) The method of claim 107, wherein said second movable mirror comprises beam splitter to split said emanating radiation into a plurality of individual wavelengths.

119. (New) The method of claim 118, wherein said beam splitter is a spectrometer.

120. (New) The method of claim 105, further comprising the step of controlling a field stop in order to probe a volume element of said sample.

121. (New) The method of claim 120, wherein said field stop has a dimension that is large compared to a quotient formed by division of a wavelength of said emanating electromagnetic radiation by a numerical aperture of said optical assembly.

122. (New) The method of claim 120, wherein said controlling step comprises controlling an array of field stops in order to probe a volume element of said sample.

123. (New) The method of claim 120, wherein said field stop is controlled by said mirror.

124. (New) The method of claim 105, wherein said sample is illuminated using a plurality of said movable mirrors.

REMARKS

Claims 1 - 104 were presented in the parent application, United States Serial No. 09/256,156, filed February 2, 1999. Claims 1 - 104 have been canceled without prejudice. New